

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/084427 A1

(51) International Patent Classification⁷: **A01K 67/027, C12N 15/62, A61K 39/00**

(74) Agents: MARTIN, Jean-Jacques, et al.; Cabinet Reginbeau, 20, rue de Chazelles, F-75847 Paris Cédex 17 (FR).

(21) International Application Number: **PCT/IB2005/000896**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: **4 March 2005 (04.03.2005)**

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
04290589.3 4 March 2004 (04.03.2004) EP

(71) Applicant (for all designated States except US): BIOPROTEIN TECHNOLOGIES [FR/FR]; 63-65 Boulevard Masséna, F-75013 Paris (FR).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventor: COHEN, Jean (deceased).

(72) Inventors; and
(75) Inventors/Applicants (for US only): SOLER, Eric [FR/FR]; 1, Rue Royale, F-78000 Versailles (FR). HOUDEBINE, Louis-Marie [FR/FR]; 9, Allée Georges, F-78530 Buc (FR). SCHWARTZ-CORNIL, Isabelle [FR/FR]; 14 Rue Clémenceau, F-78350 Jouy en Josas (FR). FOURGEUX, Cynthia [FR/FR]; 2 Villa de L'Epi d'Or, F-78210 Saint Cyr L'école (FR). PAREZ, Nathalie [FR/FR]; 3 Allée Clarck, F-94210 La Varenne (FR). GARBARG-CHENON, Antoine [FR/FR]; 8, place Charles Fillion, F-75017 Paris (FR).

(54) Title: PREPARATION OF RECOMBINANT ROTAVIRUS PROTEINS IN MILK OF TRANSGENIC NON HUMAN MAMMALS

(57) Abstract: The present invention relates to a non-human transgenic mammal whose genome comprises : i) a first transgene comprising a mammary gland specific transcriptional control region operably linked to cDNA encoding a rotavirus protein selected from VP2, VP4, VP6 and VP7 and wherein said cDNA comprises a secretion signal sequence; ii) at least a second transgene comprising a mammary gland specific transcriptional control region operably linked to cDNA encoding another said rotavirus protein and wherein said cDNA comprises a secretion signal sequence; and wherein said rotavirus proteins are secreted separately and auto-assembled in milk in rotavirus like particles (VLP) or aggregates of said rotavirus proteins.

WO 2005/084427 A1

BEST AVAILABLE COPY